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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,639

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Michael R. Bonner

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EXAMINER

LEO, LEONARD R

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,639	Applicant(s) BONNER, MICHAEL R.	
	Examiner Leonard R. Leo	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-33 is/are rejected.
- 7) ☒ Claim(s) 30 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed on August 12, 2009 has been entered. Claim 19 is cancelled, and claims 1-18 and 20-33 are pending.

The indicated allowability of claims 7-8, 15-16 is withdrawn in view of the reference(s) to Boling. Rejections based on the newly cited reference(s) follow.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “reinforcement member disposed on said second wall” in claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification lacks an adequate written description of the invention. There is no support for a reinforcement member disposed on both the first and second wall.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 23-28, 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Gross. Figure 21 of Gross discloses an elongated structure comprising a first conduit 130, a flexible elongated conduit 167 having a relatively rigid elongated reinforcing member 163, and elongated cover 170. The first conduit and flexible conduit convey fluids in parallel, since they are coaxial.

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Regarding claim 23, the cover 170 is fastened by cement.

Regarding claim 24, the cover 170 is read as forming a “pocket.”

Regarding claims 25-26, Gross discloses fluid-tight outer conduit 170 composed of a homogeneous relatively flexible material with no integral or superficial structural reinforcement.

Regarding claims 27-28, the reinforcement member 163 extends radially inward with a planar tab 164.

Regarding claim 31, the conduit 2 is capable of being inflated by a fluid due to its flexibility.

Regarding claim 33, the conduit 162 is read as having a pair of opposing walls, one of which is arcuate outwardly curving.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gross.

Gross discloses all the claimed limitations except a sensor.

The Examiner takes Official Notice of sensors for their use in the heat transfer art to monitor and control the working conditions of the heat exchanger and would be within the level of ordinary skill in the art.

Claims 1-11, 13-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boling in view of Williams et al.

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Boling (Figure 3) discloses an elongated structure comprising a first conduit 2, a flexible temperature control conduit 4 having a first radially outward wall and a radially inward wall, and elongated cover 14, but does not disclose a reinforcement member in the flexible conduit.

Williams et al discloses a flexible conduit comprising reinforcement member 12 for the purpose of maintaining structural integrity of the conduit.

Since Boling and Williams et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Williams et al would have been recognized in the pertinent art of Boling.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Boling a reinforcement member for the purpose of maintaining structural integrity of the conduit as recognized by Williams et al.

Regarding claim 3, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a flexible homogeneous material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 4-5, the outer conduit 14 of Boling has no reinforcement.

Regarding claims 6 and 9-10, Williams et al discloses the reinforcement 12 is a planar tab extending radially and circumferentially.

Regarding claims 7-8, Williams et al discloses the reinforcement disposed on opposed walls.

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Regarding claim 11, as applied in claim 29 above, the Examiner takes Official Notice of sensors for their use in the heat transfer art to monitor and control the working conditions of the heat exchanger and would be within the level of ordinary skill in the art.

Regarding claims 13 and 20, the flexible conduit 4 of Boling is capable of being inflatable by a fluid.

Regarding claims 15-16 and 21-22, Figure 3 of Boling discloses the first and second walls are arcuate.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boling in view of Williams et al as applied to claims 1-11, 13-18 and 20-22 above, and further in view of Sullivan.

The combined teachings of Boling and Williams et al lacks a pair of temperature control conduits.

Sullivan (Figure 6) discloses an elongated structure comprising a first conduit 6' and a pair of elongated temperature control conduits 20 for the purpose of increasing heat transfer.

Since Boling and Sullivan are both from the same field of endeavor and/or analogous art, the purpose disclosed by Sullivan would have been recognized in the pertinent art of Boling.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Boling pair of elongated temperature control conduits 20 for the purpose of increasing heat transfer as recognized by Sullivan.

Allowable Subject Matter

Claims 30 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

No further comments are deemed necessary at this time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/ Leonard R. Leo /
PRIMARY EXAMINER
ART UNIT 3744

December 9, 2009